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CHILDREN'S DEPARTMENT

IN CHARGE OF
LOUISE C. BRENT



THE CARE OF CHILDREN'S TEETH

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It is often said, "Why should we have teeth at all? They cause us pain while they are coming, and pain and discomfort until they are gone." These conditions are not normal, and do not exist if all the functions of the body are acting properly.

There is no reason why dentition, which is undoubtedly a physiological act, should be painful. Everyone knows that second dentition is rarely, if ever, a painful act. Why should first dentition be much more frequently so? It has been shown with a good deal of care that the so-called diseases of dentition bear in frequency of occurrence a close relation to the condition of the food given children in the different seasons of the year.

It has been found that the regurgitations of food, colic, diarrhœa, and dysentery, with their train of consequences, which were one time said to be due to teething, are more frequent in the warmer seasons. The only reasonable conclusion is that these conditions are not due to teething at all, and are most likely due to faulty feeding.

There should be a clear distinction made between those diseases which are or ever may be the result of improper feeding and the nervous disturbance caused by retarded or impeded dentition. The pressure that may be exerted upon the pulp of the tooth by nature's effort to force the tooth through the hard, fibrous gum tissue may cause serious complications, but these will necessarily be of a reflex nervous character. A diarrhœa may result, but it will not resemble that produced by digestive disturbances. The child will plainly show nervous irritation; it will suddenly awake from sleep, perhaps with a scream. There will be spasms of the facial muscles, and pain will be followed by intervals of entire relief. The mouth will be alternately moist and dry. Appetite will be variable. There will be present a peculiar fretful condition. It will be afraid to bite upon anything whatever, which is in marked con-

trast to the condition in alimentary disturbances only, where the child will bite the finger or a rubber ring. If the mouth be examined, the gums about the advancing tooth will be found swollen, red, turgid, and exceedingly tender to the touch. The mucous membrane will have lost its normal appearance, and the child will be markedly nervous while its mouth is being examined. Deep crucial incisions should be made over the advancing tooth, if it be a molar, while a longitudinal one will answer for incisors. If the diagnosis of the condition was correct and the incision sufficient, the relief will be immediate. When conditions are extreme, sedatives are necessary.

To know when an advancing tooth is likely the cause of existing disturbances, it is necessary to know at what age each tooth erupts. No definite date can be set for the eruption of a tooth. Children are not infrequently born with the incisors erupted. In most such cases it is advised to extract such teeth because they are a source of irritation to the nipple in nursing. If the child be otherwise fed, there is no necessity for extraction.

Again, some children's temporary teeth do not begin to erupt until the second or third year.

Generally speaking, however, the temporary teeth erupt as follows:

Centrals	6 months of age.
Laterals	7 to 9 " "
First molar	12 to 15 " "
Cuspid	15 to 18 " "
Second molar	24 to 36 " "

The temporary teeth are usually well developed and well formed and regularly placed in the jaws. Very occasionally will the enamel be defective, and almost never will there be any irregularity, which is in marked contrast to the condition of the permanent set. It is the duty of the nurse to see that these little teeth are well cared for. There is no time in life when a perfect masticatory apparatus is more needed than in the developmental period. The general waste of the body is to be maintained, while at the same time a gradual development must be provided for. Once maturity is reached, defective mastication has not such far-reaching consequences. The child should have no annoyances and discomforts that tend to interfere with the development of a perfect nervous organization. If it has a sore tooth here and a sore finger there and something else wrong some place else, it is always on a nervous strain from fear and pain. Comfort is essential to perfect development.

If the temporary teeth are allowed to decay and become prematurely lost,—as is sometimes the case, I am sorry to say,—the child forms faulty habits of mastication that may remain for years after better teeth

are provided. Mastication being impossible because of sore or defective teeth, the food is bolted. Digestive disturbances not infrequently follow, and drugs are resorted to for the relief of the trouble even without any thought of the condition of mastication. Children often go for months and even years without being able to eat a meal in comfort. For a time at first a child may often cry out from pain during a meal, but later it learns not to cause itself pain by biting hard substances, and the friends think that all source of trouble has passed away. What is really occurring is the swallowing of the food without its being masticated at all. The most perfect cleansing of the mouth and teeth is done by the proper mastication of solid foods. Where mastication is imperfect from any cause whatever, the mouth is unclean and the teeth decayed. Food is allowed to lodge about the teeth without disturbance, micro-organisms develop, and decay of the teeth is the result. It is a poor policy to pour medicines into the stomach for the treatment of diseases due to micro-organisms which must have gained entrance through the mouth, and, in fact, were developed there owing to the existence of the proper conditions for their growth. Many alimentary infectious disturbances are directly traceable to faulty mastication.

Parents and guardians are always anxious to know if the second teeth will be good, or "Will they be straight?" as they put it. A perfect thing is rarely developed with imperfect surroundings, and yet we sometimes see fairly well-developed teeth in most unexpected places. The rule is, however, that if the temporary teeth be decayed and neglected, etc., permanent ones will meet the same fate. There are so many permanent teeth present before all the temporary are lost that they are sure to have the beginnings of decay if it is present in the temporary. The condition of the temporary teeth has its greatest influence over the development of the jaws and the proper arrangement of the permanent teeth to follow. Where the temporary teeth are prematurely lost, the jaw does not develop sufficiently to contain all the permanent, hence there will exist a sunken appearance of the mouth, while the teeth will be crowded together, making a most unsightly appearance. If abscesses form on the root of the temporary tooth, they will not be absorbed in the natural way, and when the permanent tooth erupts it will be compelled to locate itself beside the temporary one.

To repeat, the temporary teeth must be carefully attended to to insure perfect physical development; to prevent not only their decay, but also decay of the permanent set; to insure correct habits of mastication and proper oral hygiene. Children should be taught quite early to cleanse the teeth and mouth. They should be instructed as early as two years of age to take water into the mouth after a meal and force it

back and forth between the teeth from the lips and cheeks to the mouth. They can be taught to use the tooth-brush. It must be borne in mind that the tooth-brush, to be effective, must be used correctly. The handle and that portion in which the bristles are placed should have a slight curve. The bristles should be of unequal lengths, with a bunch of long ones at the end. The brush should be passed into the mouth over the upper molars and bicuspid and rotated downward, while on the lower it should be rotated upward. The rows of long bristles will then pass in between the teeth, where it is so essential to get perfect cleanliness. The lingual sides of the upper teeth should be brushed downward and the lower upward as above described. The back-and-forth sawing motion is objectionable for several reasons. If a grit be used on the brush, the teeth will be cut into furrows and the gums will be more or less torn, according to the stiffness of the brush and the violence of the operation. Micro-organisms will develop only where they have a degree of rest. Where food and the tongue and lips rub against the teeth decay rarely occurs, but it is in the secluded spots where decays have their beginnings. Hence the necessity for allowing the brush to pass as much as possible between the teeth. Floss silk may be passed between the teeth to remove particles of food that may have found lodgement. Care must be exercised not to allow the ligature to snap down upon the gum between the teeth, so as to injure it. Perfectly normal gums should not bleed from ordinary vigorous brushing. If they do bleed, however, it is very good evidence that there is some irritation around the necks of the teeth, such as pieces of tooth-picks, tartar, etc. In such cases immediate removal of the foreign substances is imperative. If allowed to remain, pus pockets may be formed which will sooner or later cause the loosening of the teeth.

It is often asked, "What tooth-powder is the best?" Tooth-powders and pastes serve the same purpose as the salt in the bath which is so commonly recommended for the ordinary dispensary patients. It is the clean skin the patient needs more than the salt, so, in the other case, it is the clean mouth that is needed more than the powder. To wet the brush in ordinary water before using is sufficient. Powdered pumice-stone may be used on a damp brush to remove any stains. Pumice must not be used too frequently. A disinfectant mouth-wash is very desirable where conditions demand it. If a child regularly cleans its mouth and teeth, a habit will be formed which will bring both pleasure and comfort.

Decay of the teeth is the result of bacterial growth. This being true, it is the plain duty of those in charge of children to see that their mouths are kept in a hygienic condition and that the teeth be regularly

examined for beginning caries. If they be frequently taken to the dentist to have their teeth examined when as young as three years of age, they become so accustomed to going that when filling operations are required they will not approach them with dread. No thoughtful parent will allow ghost-stories and fearful stories of wild animals to be told their children, yet how frequently children are told blood-chilling stories of the horrors of the dental chair. If a child has heard none of these stories and has been in a dental office often enough to be acquainted, it can be made to bear pain with more fortitude than a grown person. But the steps must be gradual. How sad it is to see a child who has had a tooth-ache for a day or two, and perhaps heard the history of the horrors of all the tooth extractions in the neighborhood, dragged into the presence of a physician or a dentist for the first time. Perhaps it is to have a permanent tooth extracted. Such a child goes away with the firm resolution that it will never go there again. The result is that its teeth are allowed to decay beyond hope of repair, perhaps. Such a child has been maltreated through the ignorance or neglect of both parents and the one who caused the fright that prevented it from caring for its teeth.

Decay of the teeth is essentially a disease of youth. Anyone who reaches maturity with a good masticatory apparatus is almost certain not to lose his teeth by decay. Everything points to the necessity of caring for the teeth of the young. No person should have to go through life defective in development and health or maimed because of neglect during an irresponsible period of life. Surely the responsibility rests with parents and guardians, nurses, and perhaps the State.

In cases where children's temporary teeth have been allowed to decay until the pulps are exposed and painful, it might be well to mention some means of giving relief. Generally speaking, the milk-teeth are not so painful, no matter what is wrong with them, as are the permanent ones in the same condition. To intelligently treat a case it is necessary to ascertain whether the pulp of the tooth is dead or alive. If it be alive, the pain is usually excited by food wedging into it, by cold water or anything hot, by running or playing in the cold air. If cold excited the pain, warmth will relieve it. If a foreign body caused the pain, its removal will give relief. It may be that the pain will come on at night or be excited by anything sweet. In all such cases remove the exciting cause, and relief is almost certain; but the cases that come on without apparently any immediate exciting cause require different treatment. The cavity in the tooth should be located and washed out with tepid water. Next dry it out with cotton held on the point of an explorer or probe, and then apply a small pledget of cotton soaked in equal parts of oil of cloves and pure carbolic acid. Over this place a piece of dry cotton.

If the pulp is dead, the conditions are vastly different. The pain will be more continuous, the tooth will be sore to touch, the gums will be swollen in the later stages. At a certain stage cold will relieve the pain and heat intensify it, later still heat may give relief. These symptoms indicate beginning of abscesses. Often abscesses will form on the roots of the temporary teeth and go on to the formation of fistulæ without much pain. Children often go for months with lame teeth upon which they cannot bite, while at the same time there is pus exuding into the mouth from several "gum-boils" over the roots of such teeth. This continuous swallowing of pus cannot be wholesome, to say the least. In the early stages of abscess formation, which is the only time throughout their whole course in which they are painful, relief may often be given by a warm foot-bath or by opening into the pulp cavity of the tooth that seems to be sore to the touch. Hot water held in the mouth or painting the gums with iodine will often give relief. If these methods fail, sedatives may be administered. At the earliest opportunity the child should receive dental treatment, which will give it entire relief.

Generally speaking, the public do not understand that the temporary teeth ought to be well cared for because of the influence they have over the permanent teeth to follow. These same people are not likely to know the difference between a temporary tooth and a permanent one, and as a consequence a child's permanent teeth are often allowed to decay, when if the parents only knew the condition they would have them properly attended to. It is safe to say that not one parent in twenty knows that a child erupts four permanent molars just behind the temporary ones at six years of age. These molars are the most important teeth in the mouth, and the most frequently decayed and neglected. If a child between the ages of eight and twelve has toothache, in ninety per cent. of cases it is caused by the first permanent molars. These teeth are the most frequently decayed because they are so often defective in structure and in an unhygienic mouth, associated with decayed temporary teeth. At twelve years of age four more permanent molars erupt posterior to the four first permanent molars, and later the third molars, or wisdom teeth, present themselves. It must be borne in mind that the twelve permanent molars erupt posterior to the temporary molars, and that the eight bicuspid take the place of the eight temporary molars. No greater service can be done a child than to see that his first permanent molars are properly cared for. By the time the other permanent teeth erupt and need attention other than by his own efforts he will be old enough to take the responsibility upon himself.

The symptoms and treatment of diseases of the permanent teeth are the same as of the temporary. There is this difference, however, the

pain is more severe and the consequences farther reaching. The inflammatory condition surrounding a first permanent molar is often so intense that there are marked general symptoms. The swelling is often very marked, pus is abundant, an osteo-myelitis is frequent, and large portions of the jaws are often lost. Then again the pus often burrows through the bone and soft parts until it finds an opening on the face. These openings give relief by affording drainage from the pus cavity. In all cases where an alveolar abscess has opened upon the face there remains when healing has taken place a decided dimple or depression where the skin is dipped in until it is in contact with the bone. Where there is an acute alveolar abscess with much swelling and a tendency to point on the face, the region should be painted with flexible collodion to prevent such a misfortune. Hot poultices are contraindicated in such cases. Every effort should be made to induce the abscess to open in the mouth. The free use of the lance is of great service in that direction. It is not necessary to extract the teeth because an alveolar abscess exists, even if there be a fistulous opening on the face. These may be treated by injecting fluids into the tooth that will pierce out through fistulæ on the face.

To sum up: perfect teeth are essential to perfect mastication, perfect mastication is essential to perfect hygiene of the oral cavity, perfect hygiene of the oral cavity is essential to perfect digestion, and perfect digestion is essential to perfect development.

